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Utilization of textile waste (batik remnants) for womens' wear in Yogyakarta, Indonesia

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Abstract. Innovation in the art of Indonesian batik making has triggered a larger consumption of the material for both formal and informal events. Along with the development of the art, batik has become a trend with a new decorative look that is unique, interesting and varied. Lately, indulgence in the use of batik in Yogyakarta has led to increased waste in the form of the remnants. Batik remnants in Yogyakarta that continue to accumulate and not used will have a negative impact and cause environmental pollution. The purpose of this research is to build an innovative application on the utilization of industrial wastes that is the recycling of batik remnants into products of economic value. It is expected that utilizing batik remnants can produce creative and innovative womens' wear. The objectives are to create a number of artistic designs from batik remnants and at the same time save the environment. A total of four contemporary womens' wear from batik remnants produced into prototypes. With creativity, innovation and exploration, batik remnants in Yogyakarta which are no longer used can be recycled into womens' wear, which are high in economic value, and at the same time can help reduce environmental pollution.

Keywords: Remnants, Batik, Yogyakarta, Indonesia, womens' wear.

Introduction

Indonesia has been described as being one of the highest producers of waste among developing countries, especially for fabric remnants. Actually, almost 80% of solid waste (e.g. remnants/textile) can still be processed into various products. Handling of textile remnants by transferring them from one place to another and to landfills is not an appropriate solution. Besides, the recycling of textile remnants can be a source of income for the community (Outerbridge, 1991; Stall-Meadows and Peek, 2011).

Innovations in the art of batik making in Yogyakarta, (especially in motifs, colors, and materials) have been triggering a larger amount of consumption of clothes for both formal and informal events (Prasetyo, 2010). Along with the development of the art, batik has emerged to become a trend with a new decorative look that is unique, interesting and varied. As such, now batik is highly favored by the people of Indonesia.

Indulgence in the use of batik in Yogyakarta has led to increased waste in the form of batik remnants. Remnants are fabric left over pieces that comes in various sizes, patterns and colors. Batik remnants that continue to accumulate and not used will have negative impact and cause pollution. With creativity, innovation and exploration, batik remnants which are no longer used can be recycled into something new, are high in economic value, and at the same time can help reduce environmental pollution. In this study I created several models of womens' wear from batik remnants from Yogyakarta. Remnants used in this study were collected from several places that produce batik in Yogyakarta, Indonesia. This research also introduced an innovative application of recycled textile waste into products of economic value. A number of new and contemporary products in fashion design for women generated through this study

Materials and Methods

A qualitative method is adopted in this research. Primary data are collected through experimentation, exploration, and observation. Secondary data are based on references from books, journals, articles, reliable pictures and photographs. A number of non-numerical data is analyzed to search for patterns, themes, and holistic features. In addition to a number of experiments, additional experiments were also performed to find a standard experiment in the use of effective and simple batik remnants. Then a number of models that have been patterned had to be draped on the dummy. The basic materials in this study include a number of batik remnants collected from main batik producing areas batik in Indonesia that is Yogyakarta. Batik remnants collected from this region consist of various sizes, colors and motifs. After collecting batik remnants in sufficient amount, this researcher conducted various experiments to find the solution for the main problem. In addition to a number of experiments, additional explorations were also performed to find effective ideas for the use of simple batik remnants. To better focus

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on the idea, experiments have been performed on a number of models that was selected and experimented by draping remnant patchwork fabrics on the dummy. This important technique is applied to facilitate the work on the actual object. Besides, many new ideas are generated when it comes to this stage, especially in combining various motifs and colors of batik remnants. The researchers also look into the targeted group by their demographic variables (age and gender) and psychographic variables (attribute relating to personality, values, attitudes, interest, activities, and opinion). The last stage in this research is the creation of womens' wear from batik remnants in various contemporary models.

As much as possible, we incorporated pleats into any designs of the remnants. The regularity and rhythm of a row of pleats can create a harmonious and pleasing effect that is perfect for design. In addition, pleating as detail is best when it is made soft or it is cut on bias fabric. These procedures the best innovative garment designs. Besides, pleating is a simple way to show femininely and contemporary styling. A pleat is usually sewn flat and can flatter a waist by flattening out a curvy area. Either batik remnants or fabric plains can be pleated and becomes more elegant for the designs. After completing the pleats, then the researcher developed the design by exploring and experimenting the patched remnant fabrics on a dummy to create the desired form and style. It is surprising for the researcher, that playing with pleats and draping on the dummy can produce products that are flexible and convertible pieces that can be worn in multiple ways. Through this exploration also, this researcher is able to find innovative ideas that answer the project objectives and problems.

Results and discussion

The researcher finally selected four designs among the 58 available sketches. These sketches were developed based on ideas on how to optimize innovative application of batik remnants into valuable products. Among the four selected models, the researcher then needed a survey for determining the most popular design. A total of ten women respondents with are different knowledge in the fashion area were interviewed in order to help select the final designs. This selected design will be used as a basic model for idea development in the research. Based on the survey, Design-1 is the most popular model (selected by ten respondents). The survey results in detailed as shown in Figure 1.



Figure 1. Four selected designs and a final selected design based on figures from the sketches.

From analysis, it is observed that the contemporary womens' wear from remnant patchwork batik technique can be extravagant, stylish and artistic. A number of new and contemporary products in fashion design for women have been generated through this study. Among them, a total of four contemporary womens' wear from batik remnants are made into prototypes.

Through the output in this research, a fundamental question related with recycling, that is how significantly can innovative application of batik remnants contribute to saving the environment is already answered. Another research question, which is correlated to the artistic design aspect of the products, is being answered by showing more than 61 fashion ideas, even if in the form of sketches only. With regards to the outcome of the creativity and innovation of the application of product, as many as eight groups of design models have already been realized

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throughout the project. And addition, each group contains the artistry that is different from the others.

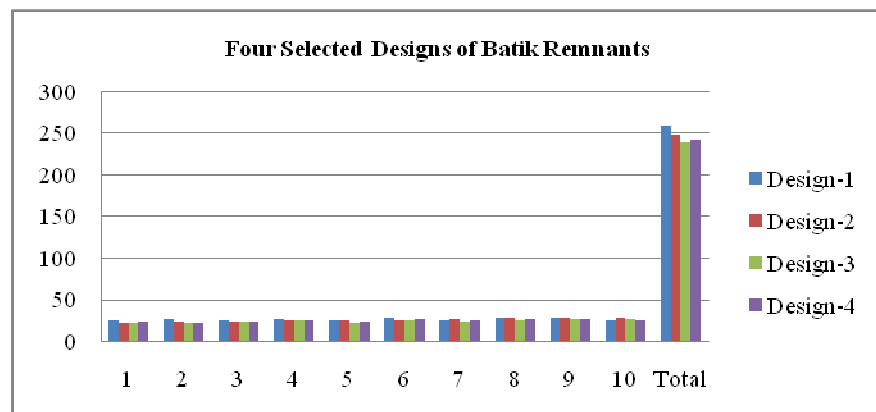


Figure 2. Data of four selected design from batik remnants by ten respondents.

In relations to the research objectives, the outcome of the research has actually been answered. Application and the use of simple geometric shapes are very useful in optimizing the utilization of batik remnants. This is important if the designs are meant for mass production. The products of the batik remnants are perceived as beautiful, artistic and valuable product. In this project, we used simple garment patterns, as they can be easily arranged on the layout. Besides, it can reduce energy, waste and is efficient. The final product may look simple, but actually the process of producing it was not an easy task. It required deep thinking, passion, tireless experiments and explorations in order to reach a qualified product. It was a challenge for this researcher, how from simple remnant materials can give prolific ideas through extensive experiment for creating a number of valuable products.

Conclusions

Through this project, a total of four contemporary womens' wear from batik remnants that was collected from cottage industries has been turned into valuable fashion products. Approximately, more than 61 sketches in the form of designs that are artistic, creative and increase income for the community. With creativity, innovation and exploration, batik remnants which are no longer used can be recycled into womens' wear, high in economic value, and at the same time can help reduce environmental pollution.

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